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|-----------------|-------------|----------------------|---------------------|
| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
|-----------------|-------------|----------------------|---------------------|

09/382,402 09/24/99 HANSEN

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LMU270816

EXAMINER

MONSIEUR, M

ART UNIT

PAPER NUMBER

2783

DATE MAILED:

09/16/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

09/382,402

Applicant(s)

Hansen et al.

Examiner

Mackly Monestime

Group Art Unit

2783

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address---

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☒ Responsive to communication(s) filed on 8/24/99
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-4 ~~is/are~~ pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-4 ~~is/are~~ rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been
- ☐ received.
- ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_
- ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 4
- ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☒ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other \_\_\_\_\_

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### **DETAILED ACTION**

1. Claims 1-4 are presented for examination.

#### ***Specification***

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

#### ***Claim Rejections - 35 U.S.C. § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 1 recites the limitation " the catenated data" in line 10. There is insufficient antecedent basis for this limitation in the claim.
5. As per claim 2-4, they are also rejected for incorporating the deficiencies of their base claim.
6. As per claim 3, line 2, recites the limitation "shape" since "shape" is not definite, the examiner is not clearly understood what shape applicant is referred to? Therefore, it makes the claim language vague.
7. As per claim 4, line 2, recites the limitations " the operand portion" and "the operand" there is insufficient antecedent basis for these limitations in the claim.

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***Claim Rejections - 35 U.S.C. § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gahan et al (US Patent No. 5,600,814) in view of Kwon (US Patent No. 5,768,546).

10. As per claim 1, Gahan et al. disclosed substantially the invention as claimed, including a system having a functional unit data path width, a first memory system having a first data path width (Fig. 1, Item No. 11, col. 3, line 5), a second memory system having a first data path width which is greater than the functional unit data path width, and greater than the first data path width (Fig. 1, Item No. 12, col. 3, lines 6-9).

Gahan et al. did not disclose the steps of: copying a first memory operand portion from the first memory system data; copying a second memory operand portion from the first memory system to the second memory system, the second memory operand portion having the first data path width and being catenated with the first memory operand portion; and reading at least a portion of the catenated data which is greater than the first data path width. However, Kwon disclosed copying a first memory operand portion from the first memory system data (col. 2, lines 52-55; col. 3, lines 19-22); copying a second memory operand portion from the first memory system to the second memory system, the second memory operand portion having the first data

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path width and being catenated with the first memory operand portion; and reading at least a portion of the catenated data (col. 2, lines 59-63; col. 3, lines 22-25). It would have been obvious to one ordinary skill in the art at the time the invention was made to combine the teachings of Kwon with the teachings of Gahan et al. because Kwon's teachings would provide an improved memory system having different data path widths.

11. As per claim 2, Gahan et al. further disclosed the step of: specifying a memory address indicia from which a plurality of data path widths of data can be read (Fig. 1, Items No. 12, 12 and 35).

12. As per claim 3, Gahan et al. further disclosed: wherein memory address indicia includes at least memory portion of first memory address and memory size and shape (col. 3, lines 27-31).

13. As per claim 4, Gahan et al. and Kwon failed to disclose the step of checking the validity of the operand portion and, if valid, permitting a subsequent instruction to access the operand. However, the concepts and associated advantages of checking the validity of operands/ memory locations before allowing an instruction to access the operands/ memory locations are well known in the art. It would have been obvious to one ordinary skill in the art at the time the invention was made to have included the checking validation technique in the system of Gahan et al. and Kwon because doing so would enhance reliability of the system by preventing an instruction from being accessed any invalid data or information, and also ensuring data integrity during execution of instructions which consist of distributed tasks.

### ***Conclusion***

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Applicant is required to give full consideration to these prior art references when responding to this office action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Girardeau, Jr (US Patent No. 5,487,024) taught a data processing system for hardware implementation of square operations and method.

Osaki et al (US Patent No. 5,280,598) taught a cache memory and bus width control circuit for selectively coupling peripheral devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mackly Monestime whose telephone number is (703) 305-3855. The examiner can normally be reached on Monday to Thursday from 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An, can be reached on (703) 305-9678. The fax phone number for this Group is (703) 306-5404.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-9000.

Mackly Monestime

  
~~Patent Examiner~~

August 9, 2000



Meng-Ai T. An  
Supervisory Patent Examiner  
Technology Center 2700